HELUCHAIN® MULTISPEED® 521-C-PUR UL/CSA

for increased mechanical stress, oil resistant



TECHNICAL DATA

PUR drag chain cable acc. to UL-Std. 758 (AWM) Style 21223, CSA-Std. C22.2 No. 210 - AWM I/II A/B, in alignment with DIN VDE 0285-525-2-51 / DIN EN 50525-2-51

Temperature range	flexible -30°C to +80°C fixed -40°C to +80°C
Nominal voltage	AC U_0/U 600/1000 V UL (AWM) AC 1000 V
Test voltage core/core	3000 V
Test voltage core/screen	3000 V
Coupling resistance	at 30 MHz, approx. 250 Ohm/km
Minimum bending radius	flexible 6.8x Outer-Ø fixed 4x Outer-Ø

CABLE STRUCTURE

- Copper wire bare, extra finely stranded acc. to DIN VDE 0295 Class 6 / IEC 60228 Class 6
- Core insulation: PP
- Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits
- Protective conductor: starting with 3 cores,
  G = with protective conductor GN-YE,
  x = without protective conductor
- Stranding:
  2 - 5 core(s): cores stranded into one layer with an optimally matched short lay length
  7 - 42 core(s): cores stranded into bundles/pairs with optimally matched, short lay lengths; bundles/pairs stranded together around a tensile core
- Ripcord
- Inner sheath: TPE, extruded filler
- Screen: braided screen of tinned copper wires, approx. coverage 85%
- Outer sheath: PUR, extruded filler
- Sheath colour: grey (RAL 7001)
- Length marking: in metres

PROPERTIES

- resistant to: oil, UV radiation, ozone
- low adhesion
- longer service life due to low frictional resistance of the PP-insulated cores
- for outdoor use
- suitable for use in drag chains
- Drag chain parameters
  Acceleration (max.): 50 m/s²
  Velocity (max.), gliding: 5 m/s
  Traverse path (max.): 450 m
- highly restistant to alternate bending strength
- halogen-free
- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

TESTS

- halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2, UL VW-1, CSA FT1
- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404

APPLICATION

This UL/CSA approved cable is used when high demands are placed on the cable. Designed for export-oriented mechanical engineers, specifically in the USA and Canada. Gearing to the needs of the industry, materials and stranding techniques permit continuous use as highly flexible drag chain cables with long travelling distance capabilities at high or low speeds. For installation in dry and damp rooms, as well as outdoors. With free movement, without tensile stress and without forced motion control capabilities, these highly flexible PUR drag chain cables are suitable for frequent lifting and bending stress in machine and tool construction. EMC= Electromagnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the copper braiding.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only
- for use in energy supply systems:
  1) the assembly instructions must be observed
  2) for special applications, we recommend contacting us and using our data entry form for energy supply systems

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
11001750	2 x 0.5	21	7.2	28.5	70.0
11001751	3 G 0.5	21	7.4	33.1	75.0
11001752	4 G 0.5	21	7.8	40.8	85.0
11001753	5 G 0.5	21	8.3	48.0	98.0
11001754	7 G 0.5	21	10.8	73.6	153.0
11001755	12 G 0.5	21	12.4	103.4	207.0
11001756	16 G 0.5	21	13.5	128.0	247.0
11001757	18 G 0.5	21	14.5	138.0	273.0
11001758	20 G 0.5	21	14.8	149.0	290.0

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
11001759	25 G 0.5	21	16.4	182.6	352.0
11001760	36 G 0.5	21	19.9	250.4	500.0
11001761	42 G 0.5	21	22.0	309.5	611.0
11001762	2 x 0.75	19	7.6	36.2	81.0
11001763	3 G 0.75	19	7.9	43.4	89.0
11001764	4 G 0.75	19	8.3	52.8	101.0
11001765	5 G 0.75	19	8.9	62.7	118.0
11001766	7 G 0.75	19	11.6	90.8	179.0
11001767	12 G 0.75	19	13.3	137.8	251.0

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Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
11001768	16 G 0.75	19	14.8	172.4	310.0
11001769	18 G 0.75	19	16.1	187.2	343.0
11001770	20 G 0.75	19	16.5	206.8	370.0
11001771	25 G 0.75	19	18.1	248.8	446.0
11001772	36 G 0.75	19	22.4	366.7	662.0
11001773	42 G 0.75	19	24.4	425.1	784.0
11001774	2 x 1	18	8.0	41.2	90.0
11001775	3 G 1	18	8.3	53.5	103.0
11001776	4 G 1	18	8.8	62.8	117.0
11001777	5 G 1	18	9.7	81.9	146.0
11001778	7 G 1	18	12.6	113.5	216.0
11001779	12 G 1	18	14.6	167.0	303.0
11001780	16 G 1	18	16.4	217.0	382.0
11001781	18 G 1	18	17.6	236.3	420.0
11001782	20 G 1	18	18.0	260.0	453.0
11001783	25 G 1	18	20.0	314.9	560.0
11001784	36 G 1	18	24.8	472.3	837.0
11001785	42 G 1	18	27.3	541.0	993.0
11001786	2 x 1.5	16	8.6	53.4	107.0
11001787	3 G 1.5	16	9.0	68.1	124.0
11001788	4 G 1.5	16	9.9	92.0	157.0
11001789	5 G 1.5	16	10.6	111.5	183.0
11001790	7 G 1.5	16	13.9	152.9	271.0
11001791	12 G 1.5	16	16.5	235.6	397.0
11001792	16 G 1.5	16	18.6	299.7	506.0
11001793	18 G 1.5	16	20.0	337.0	563.0
11001794	20 G 1.5	16	20.4	366.7	608.0
11001795	25 G 1.5	16	23.1	483.1	790.0
11001796	36 G 1.5	16	28.5	656.9	1137.0
11001797	42 G 1.5	16	31.3	758.4	1326.0
11001798	2 x 2.5	14	9.9	82.4	150.0
11001799	3 G 2.5	14	10.4	106.8	175.0
11001800	4 G 2.5	14	11.1	135.9	210.0
11001801	5 G 2.5	14	12.0	165.5	248.0
11001802	7 G 2.5	14	16.6	230.4	387.0
11001803	12 G 2.5	14	19.7	363.7	582.0
11001804	16 G 2.5	14	22.5	491.7	776.0
11001805	18 G 2.5	14	24.2	554.9	867.0
11001806	20 G 2.5	14	24.6	602.2	929.0
11001807	25 G 2.5	14	27.6	737.8	1148.0
11001808	3 G 4	12	11.7	155.8	237.0
11001809	4 G 4	12	12.8	199.6	294.0
11001810	5 G 4	12	13.8	243.9	347.0
11001811	3 G 6	10	13.2	224.0	318.0
11001812	4 G 6	10	14.5	282.0	395.0
11001813	5 G 6	10	16.1	345.6	474.0

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